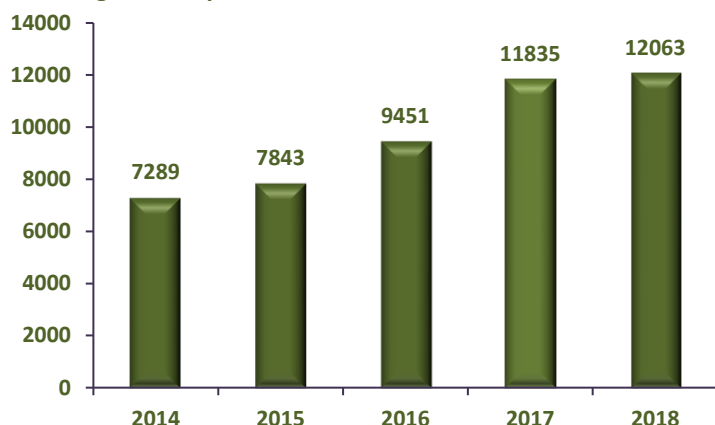## What is Gonorrhea?

Gonorrhea is a sexually transmitted bacterial infection. It is the **second** most commonly reported communicable disease in Indiana and in the U.S.[1] The Centers for Disease Control and Prevention (CDC) estimates that more than **1.4 million Americans** will contract gonorrhea each year; it is most commonly diagnosed in young adults 15-24[1] years of age. Gonorrhea is spread by oral, vaginal or anal sex with someone infected with the bacteria.[1] Gonorrhea is easily treated and cured with antibiotics, but if left untreated a more serious infection, infertility, heart trouble, skin disease, arthritis and blindness can occcur.[2] Pregnant women can spread gonorrhea to their baby during childbirth, leading to pneumonia or even blindness.[1]

Figure 1. Reported Indiana Gonorrhea Cases 2014-2018[3]

Signs and Symptoms

Symptoms may appear 2-21 days after having sex with an infected partner.[2] Seek testing if you or your partner has any of the following symptoms:

Men may experience:
- Pain or burning during urination[1]
- Penile discharge (white, yellow or green)[1]
- Frequent urination[1]
- Painful or swollen testicles (not common)[1,2]

Women may experience:
- Pain or burning upon urination[1]
- Increased vaginal discharge (may be thick yellow or white)[1]
- Abnormal periods[1]
- Vaginal bleeding between periods[1]
- Lower abdominal pain[1,2]

Rectal infections may result in:
- Discharge[1]
- Anal itching[1]
- Soreness[1]
- Bleeding[1]
- Painful bowel movements[1]

Many people will have no symptoms at all; it is important to get tested regularly for STDs (Sexually Transmitted Diseases) if you are sexually active.

Expedited Partner Therapy

Indiana practitioners may legally prescribe antibiotics to any exposed sex partners who are unable to seek treatment. Prescriptions are to be given to the infected patient for distribution to partners. For more information, visit the Indiana State Department of Health website: **http://www.in.gov/isdh/17440.htm**.

Gonorrhea and HIV Co-infection

Transmission of HIV during sex with an HIV-infected partner is 3-5 times more likely when a skin disruption, such as a chancre or other break in the skin caused by gonorrhea or another STD, is present.[1]

It is recommended that anyone who is diagnosed with gonorrhea also be tested for HIV.

STD prevention is HIV prevention.

Fast Facts

- Gonorrhea is **curable**.
- Drug resistant gonorrhea is a **real threat**.
- Latex **condoms** used the right way every time will greatly reduce the chance of infection.[1]
- **Damage** from untreated gonorrhea cannot be reversed.[1]
- Patients should take all medication for the entire duration; medication should not be shared. Failure to do so could result in ongoing infection.[1]
- Patients should **wait** 7 days until they and all partners have completed treatment before having sex again.[1]

GONORRHEA

Indiana State Department of Health

Testing

Any sexually active person is at risk and should be tested for gonorrhea. Testing for gonorrhea is site specific because the infection can be in different parts of the body. Make sure to let your doctor know if you have been engaging in oral, vaginal or anal sex so the test can be administered to the correct site.[1]

Treatment

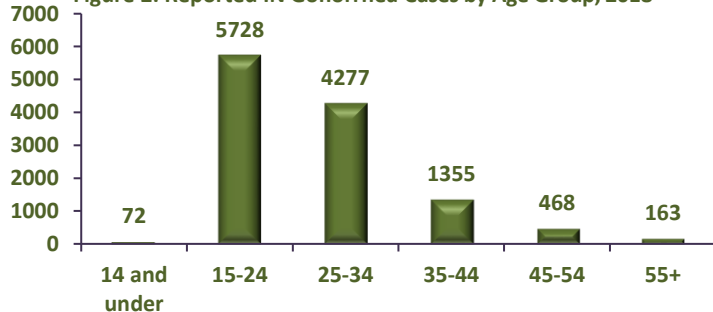| Preferred treatment |
|---|
| Ceftriaxone 250mg injection **PLUS** Azithromycin 1 g PO for adults and adolescents with uncomplicated gonorrhea infection. This is the only recommended regimen for pharyngeal (throat) infections.[4] |

Azithromycin is prescribed *simultaneously* with Ceftriaxone to boost the efficacy of the Ceftriaxone and reduce resistance. Many patients are co-infected with gonorrhea and chlamydia, so dual therapy with a regimen effective against chlamydia is routinely recommended, regardless of chlamydia test results.[4]

Health Disparity: Age

The rates of gonorrhea infection are different among age groups in the U.S. population, and that holds true for Indiana. Young Hoosiers are about 12 times more likely to suffer an infection of gonorrhea than older Hoosiers [Figure 2].

The disparity may be linked to barriers of quality prevention services, inability to pay for treatment, confidentiality concerns and discomfort with treatment facilities designed to serve adults.[5]

Drug Resistant Gonorrhea

Gonorrhea has rapidly developed resistance to all known classes of antibiotics except one, and there are new strains that are showing resistance to that remaining class of antibiotics.[1] New strains are being found in the U.S. now and are only curable with high doses of antibiotics or intravenous antibiotics.[6] To reduce the risks of resistance, it is important to complete all medications.

Public Health concerns regarding antibiotic resistance include:

- *Epidemics come with high costs*- If total antibiotic resistance develops, this means there will be no effective treatment and more tests, cases and medical expenses for the healthcare system.[6]
- *Sterility and poor pregnancy outcomes*- Untreated gonorrhea increases infertility rates; more women can develop Pelvic Inflammatory Disease (PID); and some women will be at risk for ectopic pregnancy (fetus implants outside the uterus), which could result in death of both the fetus and the mother.[1,6]

Health Disparity: Race

African American Hoosiers suffer an infection of gonorrhea at a rate **12 times** that of White Hoosiers [Figure 3]. [1] This disparity may be linked to barriers of quality prevention services, fear and distrust of health care systems and economic inequality.[5]

Figure 2. Reported IN Gonorrhea Cases by Age Group, 2018[3]

14 and under: 72; 15-24: 5728; 25-34: 4277; 35-44: 1355; 45-54: 468; 55+: 163

Figure 3. Reported IN Gonorrhea Rates by Race/Ethnicity, 2014-2018 (per 100,000 people)[3]

White, Black, Hispanic

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1. Centers for Disease Control and Prevention. http://www.cdc.gov/std/gonorrhea/.
2. Indiana State Department of Health. http://www.in.gov/isdh/17440.htm.
3. Indiana State Department of Health. (2018). Statewide Investigating, Monitoring and Surveillance System (SWIMSS). Internal Data.
4. Centers for Disease Control and Prevention. http://www.cdc.gov/std/tg2015/
5. Centers for Disease Control and Prevention. http://www.cdc.gov/std/stats14/minorities.htm
6. National Coalition of STD Directors. Drug Resistant Gonorrhea. http://www.ncsddc.org/publications/fact-sheet-drug-resistant-gonorrhea-challenge-we-can-meet-through-public-health-investm .

Dec 2019

*For additional information on gonorrhea in Indiana, please visit: **www.in.gov/isdh/17440.htm***